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Applicant: Friedrich BOECKING et al.
Docket No. R.304047
Preliminary Amdt.

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-7. (Canceled)

8. (New) A piezoelectric actuator, comprising
a multilayered structure of piezoelectric layers (2) with inner electrodes (3, 4)
disposed between them,
a contacting of the inner electrodes (3, 4) on alternating sides with outer electrodes (5,
6), and
chamfered corners or edges (10) on the piezoelectric actuator (1), wherein
the inner electrodes (3) having a contour in the region of the corners or edges (10), on
the sides of the piezoelectric actuator (1) on which the inner electrodes (3, 4) with alternating
polarities are routed to the respective outer electrodes (5, 6), that makes it possible to achieve
a lower field intensity between the inner electrodes (3, 4) of alternating polarities in the
structure of piezoelectric layers (2).

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9. (New) The piezoelectric actuator according to claim 8, wherein

the chamfers at the corners of the piezoelectric actuator (1) are embodied so that the edge (10) on the side that is not contacted by the outer electrodes (5, 6) has an obtuse angle (∞).

10. (New) The piezoelectric actuator according to claim 8, wherein

the chamfers at the corners of the piezoelectric actuator (1) are embodied so that at least the edge (10) on the side that is not contacted by the outer electrodes (5, 6) is rounded.

11. (New) The piezoelectric actuator according to claim 10, wherein

the chamfers at the corners of the piezoelectric actuator (1) are embodied so that the entire corner of the piezoelectric actuator (1) and correspondingly, the contour of the respectively non-contacted inner electrode (3), is rounded.

12. (New) The piezoelectric actuator according to claim 10, wherein

the chamfers at the corners of the piezoelectric actuator (1) are embodied so that the entire corner of the piezoelectric actuator (1) is beveled and the contour of the respectively non-contacted inner electrode (3), is rounded.

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13. (New) The piezoelectric actuator according to claim 9, wherein

on the side of that the inner electrode (4) of the respective opposite polarity is contacted, the contour of the respectively non-contacted inner electrode (3) is embodied so that it is recessed a preset amount from the outer contour of the piezoelectric actuator (1).

14. (New) The piezoelectric actuator according to claim 10, wherein

on the side of that the inner electrode (4) of the respective opposite polarity is contacted, the contour of the respectively non-contacted inner electrode (3) is embodied so that it is recessed a preset amount from the outer contour of the piezoelectric actuator (1).

15. (New) The piezoelectric actuator according to claim 11, wherein

on the side of that the inner electrode (4) of the respective opposite polarity is contacted, the contour of the respectively non-contacted inner electrode (3) is embodied so that it is recessed a preset amount from the outer contour of the piezoelectric actuator (1).

16. (New) The piezoelectric actuator according to claim 12, wherein

on the side of that the inner electrode (4) of the respective opposite polarity is contacted, the contour of the respectively non-contacted inner electrode (3) is embodied so that it is recessed a preset amount from the outer contour of the piezoelectric actuator (1).

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17. (New) The piezoelectric actuator according to claim 13, wherein
the contour of the respectively non-contacted inner electrode is recessed in accordance
with the outer contour of the piezoelectric actuator.
18. (New) The piezoelectric actuator according to claim 14, wherein
the contour of the respectively non-contacted inner electrode is recessed in accordance
with the outer contour of the piezoelectric actuator.
19. (New) The piezoelectric actuator according to claim 15, wherein
the contour of the respectively non-contacted inner electrode is recessed in accordance
with the outer contour of the piezoelectric actuator.
20. (New) The piezoelectric actuator according to claim 16, wherein
the contour of the respectively non-contacted inner electrode is recessed in accordance
with the outer contour of the piezoelectric actuator.